Applicant: Karpusas, et al.

Application No.: 09/826,716

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20.

## Amend the claims as follows:

1.-19. (cancelled)

entity to associate with an I-domain of the  $\alpha 1$  chain of the  $\alpha 1\beta 1$  integrin, or a complex comprising an I-domain of the  $\alpha 1$  chain of the  $\alpha 1\beta 1$  integrin  $\alpha 1$ —I domain wherein:

(a) crystallographic coordinates of either (i) the I-domain of the  $\alpha 1$  chain of the  $\alpha 1\beta 1$  integrin  $\alpha 1$ —I domain or (ii) a complex comprising an I-domain of the  $\alpha 1$  chain of an  $\alpha 1\beta 1$  integrin  $\alpha 1$ —I domain, are used in a fitting operation between the chemical entity and said I-domain of the  $\alpha 1$  chain of the  $\alpha 1\beta 1$  integrin I-domain or complex comprising an I-domain of the  $\alpha 1$  chain of an  $\alpha 1\beta 1$  integrin—thereof, thereby obtaining to obtain data related to said association; and

(currently amended) A method comprising evaluating the ability of a chemical

- (b) the degree of association between the chemical entity and either (i) the I-domain of the α1 chain of the α1β1 integrin α1-I domain, or a (ii) the complex comprising an I-domain of the α1 chain of an comprising an α1β1 integrin α1-I domain, is evaluated in a competition assay; and
- (c) the crystallographic coordinates of the I-domain of the  $\alpha 1$  chain of the  $\alpha 1\beta 1$  integrin are substantially identical to those listed in Table II herein.
- 21.-33. (cancelled).
- 34. (currently amended) A method for evaluating the binding of a composition to an an I-domain of the α1 chain of an α1β1 integrin α1-I domain comprising:
- (a) crystallizing an I-domain of the  $\alpha$ 1 chain of an  $\alpha$ 1 $\beta$ 1 integrin  $\alpha$ 1-I domain by reacting a proteolytically digested  $\alpha$ 1-I domain I-domain of the  $\alpha$ 1 chain of an  $\alpha$ 1 $\beta$ 1 integrin in a buffered crystallization solvent comprising a surfactant;
- (b) determining the crystal coordinates of the crystallized  $\alpha 1$ -I domain;
- (c) using the crystal coordinates of the crystallized  $\alpha 1$ -I domain to identify computationally a composition which bind to the  $\alpha 1$ -I domain; and
- (d) using a competition assay to assess the extent to which the composition binds to the  $\alpha$ 1-I domain; wherein the crystallographic coordinates of the I-domain of the  $\alpha$ 1 chain of the  $\alpha$ 1 $\beta$ 1 integrin are substantially identical to those listed in Table II herein.

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35. (previously presented) The method of claim 34, wherein the crystallization solvent comprises a PEG surfactant and a sodium-containing buffer and the crystallized α1-I domain is frozen before its crystal coordinates are determined.

- 36. (previously presented) The method of claim 34, wherein the proteolytically digested  $\alpha$ 1-I domain is in a des 1-18 form.
- 37. (previously presented) The method of claim 35, wherein the proteolytically digested  $\alpha$ 1-I domain is in a des 1-18 form.